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RESEARCH

Board games: gerotechnology in nursing care practice

Jogo de tabuleiro: uma gerontotecnologia na clínica do cuidado de enfermagem

Juego de tablero: una tecnología gerontológica en la clínica de la atención de enfermería

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ABSTRACT

Objective: To create a board game as a form of gerotechnology to promote active and healthy aging. **Method:** This was a qualitative, convergent care study conducted with 32 older adults. Individual interviews, creativity and sensitivity techniques, group discussions, and participant observations guided by Paulo Freire's theoretical framework of problematization were used to produce data. The participants and researchers assessed the entire production process at the end of the study, after the gerotechnology was implemented in the groups. French discourse analysis was adopted. **Results:** Patented under registration no. BR 1020160107725, the game was created as a technological product based on the discussions with older adults, considering the conceptions, knowledge and practices shared by them about aging. **Final considerations:** The gerotechnology implemented in clinical nursing practices functioned as a playful resource to exercise self-determination and independence among older adults, boosting memory, self-esteem, socialization processes, exchanging experiences and shared learning.

Descriptors: Geriatric Nursing; Biomedical Technology; Health of the Elderly; Culturally Competent Care; Health Education.

RESUMO

Objetivo: criar um jogo de tabuleiro como gerontotecnologia voltada à promoção do envelhecimento ativo e saudável. **Método:** pesquisa qualitativa, convergente assistencial, com 32 idosos. Os dados foram produzidos por entrevistas individuais, técnicas de criatividade e sensibilidade, discussão em grupo e observação participante norteadas pelo referencial teórico da problematização de Paulo Freire. A avaliação pelos participantes e pela pesquisadora de todo o processo de produção ocorreu na última etapa, após a implementação da gerontotecnologia nos grupos. Adotou-se análise de discurso francesa. **Resultados:** o jogo, patenteado sob o registro BR 1020160107725, foi elaborado como produto tecnológico a partir das discussões havidas com os idosos, considerando-se o compartilhamento de suas concepções, seus saberes e suas práticas sobre o envelhecimento. **Considerações finais:** a gerontotecnologia implementada na clínica do cuidado de enfermagem agiu como elemento lúdico no exercício da autodeterminação e independência do idoso, como potencializador de memória, autoestima, processos de socialização, trocas de experiências e aprendizagem compartilhada.

Descritores: Enfermagem Geriátrica; Tecnologia Biomédica; Saúde do Idoso; Assistência à Saúde Culturalmente Competente; Educação em Saúde.

RESUMEN

Objetivo: Crear un juego de tablero como tecnología gerontológica orientada a promover el envejecimiento activo y saludable. **Método**: Investigación cualitativa, convergente asistencial, con 32 ancianos. Datos generados por entrevistas individuales, técnicas de creatividad y sensibilidad, discusión grupal y observación participante, orientada por referencial teórico de problematización de Paulo Freire. La evaluación de los participantes e investigadora sobre todo el proceso de producción ocurrió en última etapa posterior a implementación de la tecnología gerontológica en los grupos. Se adoptó análisis del discurso francés. **Resultados:** El juego, patentado bajo registro BR 1020160107725, fue elaborado como producto tecnológico partiendo de discusiones mantenidas con los ancianos, considerando compartir concepciones, saberes y prácticas sobre envejecimiento. **Consideraciones finales**: La tecnología gerontológica implementada en la clínica de atención de enfermería actuó como

elemento lúdico para ejercicio de autodeterminación e independencia del anciano, potenciador de memoria, autoestima, procesos de socialización, intercambio de experiencias y aprendizaje compartido.
Descriptores: Enfermería Geriátrica; Tecnología Biomédica; Salud del Anciano; Asistencia Sanitaria Culturalmente Competente; Educación en Salud.

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INTRODUCTION

Social representations constructed around advanced age tend to be strongly associated with illness, dependence, and emotional suffering, characteristics that are accepted as a normal and inevitable part of this stage[1-2]. The changes and cognitive impairments inherent to the aging process can result in functional decline, and this can lead to functional dependency, with a gradual onset until all domains of functionality are compromised. In these cases, older adults lose the ability for self-care and to answer for themselves[3-4]. In addition to difficulties in retaining and recovering information, older adults frequently mention occupational and social losses[5-6]. Therefore, it is important to practice activities that favor body movement and that activate memory, such as physical exercise and various recreational activities that can be developed based on educational, healthcare, or managerial technologies[7-8].

The term technology originates from two Greek terms, namely, "techne," which means the skill or manner in which something is done, and "logus," or discourse or reason, resulting in the meaning of "the rational process of knowing how to reach a given end." In other words, technological knowledge is relative to knowing how to achieve given ends, or knowing how to create and improvise solutions, which is not limited to generalized science-based knowledge. Thus, it is important to know what is needed to solve practical problems (knowing the means by which to reach an end), and thus, develop artifacts that will be used, considering the whole sociocultural context in which the problem is inserted[9].

In the evolution of health care and in the context of nursing care, these different types of technologies are developed through the need to translate technical-scientific knowledge into tools, processes, and materials. Studies have shown that together, these elements not only improve quality of care, but also expand possibilities for nurses when carrying out care producing practices[10]. Among existing technologies, educational ones refer to the group of strategies that aim to innovate education, used by educators and educatees, in the various methods of formal-academic and formal-ongoing learning[11-12].

In terms of gerontology, gerotechnology is an interdisciplinary field that includes scientific research directed toward the development of techniques, products and services based on knowledge about the aging process. It aims to support active and healthy aging, provide solutions related to the functional demands of older adults, and considers psychological and social aspects[12]. Gerotechnology is an important tool to develop a care model that strengthens the care abilities of both older adults and their family members and/or caregivers, helping to promote effective strategies to maintain care practices and thus improving older adult health care[12-13]. Educational gerotechnology, therefore, is defined as the knowledge, products, processes, and strategies that create new possibilities in the teaching-learning process by valuing relationships and interactions among nurses, older adults, and families[14-15].

National and international policies for older adult health recommend the use of creative strategies that favor communication among professionals, subjects, and groups[16-18]. Among these, recreational activities allow for dialogical actions, which open space for new ideas and creative reflections, overcoming a narrow view of reality by forming critical awareness, expanding outlooks based on a commitment to reality, and forming subjects to become transformative agents[19]. Thus, educational activities developed through recreational activities foster learning mediation, stimulate understanding of topics, or the object of the health education process, in a pleasant manner, generate reflection about the knowledge acquired and create relationships between knowledge that is produced recreationally and experienced reality, including individual and collective behavioral aspects[20].

OBJECTIVE

To create and implement a board game as a form of gerotechnology to promote active and healthy aging. The board game was chosen because of its social nature, as it requires several players and promotes interaction among older adults using creativity, the exchange of experiences and information, and fostering creative thinking[19].

METHOD

Ethical aspects

The present study abided by the ethical precepts established for research with human beings set forth by Resolution no. 466/12 of the National Health Council/Ministry of Health, and was approved by the Research Ethics Committee of the Anna Nery School of Nursing/São Francisco de Assis Teaching Hospital, of the Federal University of Rio de Janeiro (CEP/EEAN/HESFA). Individuals expressed their voluntary participation by signing informed consent forms.

Study type

This was a qualitative, exploratory, and descriptive study, based on the convergent care research approach (PCA, in Portuguese). This research method differs in that it maintains a close relationship with care practice during the entire research process, proposing interventions in the researched social context and incorporating innovation into care practices[21].

Methodological framework

In the present study, concepts relative to the research-care convergence approach were highlighted throughout the entire process, which includes constructing links between thinking and doing. This connection allowed the researchers to obtain information about the participants' experiences regarding the investigated theme while also conducting care practices through actions to socialize knowledge and provide dialogued orientation, using the problematization pedagogical method. The researcher's position as a professor in the studied institution ensured the development of care actions through educational actions, as she experienced the reality and the needs that emerged as data production occurred. Thus, she could interact with situations and intervene, apprehending the investigated phenomenon based on practical care situations.

Methodological procedures

Study location

The study was conducted at the Open University for Older Adults, of the Federal University of Espírito Santo (UnATI/UFES), in Vitória, Espírito Santo, Brazil. This institution provides space for comprehensive discussion about older adults, guided by an educational perspective that defends breaking with situations of domination, tutelage, discrimination, and violence against older adults.

Data source

Thirty-one older adults who were attending the "Health and Quality of Life" module of the UnATI/UFES program participated in the study.

Data collection and organization

The data were produced between October and December 2014 using individual interviews, the "Almanac" creativity and sensitivity technique (CST), group discussions, and participatory observation. Participants were recruited on the first day of class of the second semester of 2014 at UnATI/UFES, at the same time as they were enrolling in the educational modules provided by the institution, which were defined according to the interests and needs that emerged from the interested older adults. After presenting the objectives of the study to the UnATI professional team at a scientific meeting, the researchers became the facilitators of the "Health and Quality of Life" module. Thus, health education actions were developed about on the topic of "promoting and maintaining active and healthy aging," based on the researchers' access to the knowledge and practices of the older adults, using recreational care strategies in an educational group setting. With the goal of recruiting older adults to participate in this module, a lecture was given about the theme, attended by 56 older adults. Of these, 31 participated in all the data production phases and one participated only in the individual interview.

Inclusion criteria were: older adults enrolled in the "Health and Quality of Life" module and who participated in all the steps of the data production process. Older adults with cognitive impairments were excluded using the Mini-Mental State Examination (MMSE), considering < 19 points for illiterate individuals, < 23 points for those with 1 to 3 years of formal education, < 24 points for 4 to 7 five years, and < 28 years, more than 7 years. Furthermore, older adults with functional dependency with scores higher than 9 on the Basic Activities of Daily Living and Instrumental Activities of Daily Living scales were also excluded. The results of this assessment were not used during the study, only as a tool to establish exclusion criteria.

The research data were organized according to the production techniques; group discussions were audio recorded using electronic media and then transcribed; and individual artistic productions were organized and digitized.

Work stages

Data production process

Individual interviews were scheduled by randomly splitting the participants into three groups after carrying out the activities that composed the "Health and Quality of Life" module and before forming the convergence groups. These interviews occurred over three encounters, lasting 30 minutes each, conducted in locations that ensured privacy. Data were gathered about sociodemographic factors, health problems and risks, and about the individual's participation in health education activities, with or without recreational practices. At the time of the interview, the objectives of the study were reinforced and questions were answered, as also occurred throughout the entire process of developing the groups and data production.

Following the interview phase, participants were divided into three convergence groups: two women-only groups and one mixed-gender group. The aim of the mixed group was to identify and work with possible factors associated with the social construction of the role of men and women regarding the maintenance of health. To increase rapport and trust among group participants, the groups remained unchanged for all the meetings. The convergence groups discussed practices for active and healthy aging, and dialogue among members was conducted based on Paulo Freire's problematization method[22].

Four meetings were conducted with each convergence group, lasting an average of two hours and a half per group, each at a different time, according to a pre-established schedule given to participants. In the first meeting, participants introduced themselves through an activity called the "name chain", which emphasized the importance of names, eye-to-eye contact, listening, and a receptive attitude. Next, participants received name tags to facilitate group interaction.

After this introduction, the first conversation circle was initiated, based on a pre-defined script for dialoguing/reflecting about the theme "active and healthy aging". The researchers asked the group open-ended questions for discussion and reflection about what it means to be active and healthy, and practices that foster or harm active and healthy aging.

To help get the discussion going and foster group integration, the Almanac creativity and sensitivity technique was used. This technique gets participants to draw freely about the issue being discussed: "What is active and healthy aging?" As participants expressed their feelings and conceptions through

drawing, they explained their work and "naturally" make assertions and created a discussion about the central theme: "knowledge and practices for active and healthy aging." Next, they discussed their own experiences with practices for active and healthy aging based on the following guiding questions: How do you rate your health? What are the things you do that foster active and healthy aging? What are the things you do that compromise or could compromise active and healthy aging? What can you do to age actively and in good health? During this stage, participants could reference and make connections with their art work.

After the discussion, participants voted on the themes they wished to spend more time on at the next meeting and thus, have the opportunity to talk about issues that involved their own knowledge and practices. The elected themes were: healthy diet, physical activity, medication, the aging body, the main health problems in advanced age, fall prevention, sexuality, independence and autonomy, socioeconomic problems in advanced age, and family. At the end of the meeting, the researchers thanked the participants for their presence and invited them to attend the next one.

At the second meeting, the group conducted an activity called "This reminds me of..." which is based on a playful association of ideas, facilitating the expression of feelings and conceptions that enabled a spontaneous discussion. Next, a new conversation circle was carried out to discuss and reflect about the main themes raised by the participants in the first meeting, converging "lay knowledge" and "scientific knowledge" to reinforce and construct new knowledge about the theme, addressing myths, doubts, and negative habits.

After the circle, participants were asked to mention what types of games could be created to better assimilate the content, and that could be used at the third meeting. Among the various games mentioned by the three groups, four games were chosen, and of these, only the board game was presented in this study. This game was constructed by the researcher as an educational intervention, based on the knowledge and practices of the older adults about active and healthy aging. It was played at the third group meeting with the aim of constructing and reconstructing knowledge and transforming reality.

The fourth meeting took place in the form of a conversation circle to assess the implemented strategy. The conversation followed a script containing open-ended questions about the participation of each group member in the proposed educational strategy: What was is it like to have participated in the module's educational activities in general and the recreational practices specifically? What made it easier and what made it harder? What knowledge was shared in the group during the educational activities? What changed and what stayed the same about their self-care even after participating in the activity? Last, the older adults were given the opportunity to express their thoughts about the nurse's participation in the health education process regarding active and healthy aging, their experience participating in the study, and suggestions. Chart 1 presents a summary of the stages developed in the study.

Chart 1 – Summary of the stages of the data production process, Vitória, Espírito Santo, Brazil, October-November, 2014

Stage	Goal	Strategy
Stage 1	Publicizing the activities: inaugural class of the UnATI semester[1] and enrollment of older adults into available modules.	Sensitizing UnATI older adults by giving a lecture about the importance of active and healthy aging.
	Selecting participants: eligibility for the study based on the inclusion and exclusion criteria.	Administering instruments: BADL[2], IADL[3] and MMSE[4].
	Individual interviews with participants. The objectives of the study were repeated and questions were answered, as occurred throughout the entire process of developing the group activities and data production.	Structured form to collect sociodemographic data, health problems and social risk of participants, and information about prior experience with group or individual educational activities.
Stage 2	Forming convergence groups	Forming groups with 7-12 participants, splitting into 2 female groups and one mixed-gender group.
Stage 3	First meeting: Introductions and the first conversation circle about "Active and Healthy Aging"	Activity called "Chain of names", Creativity and Sensitivity Technique (CST5) called Almanac, and script for conducting dialogue/reflection about the theme.
	Second meeting: Conversation circle based on the knowledge and practices regarding the central theme; group vote on the types of games that can be used to better assimilate the content.	Activity called "This reminds me of..." Dialogued Lecture
	Third meeting: Using the game constructed based on the knowledge and practices of the older adults.	Playing the game as a playful care strategy.
	Fourth meeting: Conversation circle to evaluate the implemented strategy.	Use of a script with open-ended questions regarding the participation in the proposed educational strategy and application of the Almanac CST technique.

Note: [1]Open University for Older Adults; [2]Basic Activities of Daily Living; [3]Instrumental Activities of Daily Living; [4]Mini-Mental State Examination; 5Creativity and Sensitivity Technique.

Data analysis

After an initial reading of the corpus of the data produced, French discourse analysis was conducted based on data triangulation. The goal of the analysis was to understand the production of meaning regarding the symbolic object and its significance to the subjects and that given by them[23]. From the discursive perspective, language only has meaning because it is inscribed in history. Thus, discursive fragments of the study subjects' dialogue were analyzed, considering the historical-social context in which the discourse was produced and the place from which the interlocutors spoke. Regarding textual records, the meetings were transcribed, using resources to achieve the linguistic concreteness of the text produced, and in such a way as to capture the expression of the participants at the time of data production within each convergence group as accurately as possible: dashes (–); exclamation points (!); quotation marks ("…"); brackets [ ]; and parenthesis (text).

RESULTS

Board game presentation and rules

The game board can be made of cardboard, paper, EVA, or any other resistant material, containing alternatives relative to practices to promote functional capacity and, consequently, active, and healthy aging. Different from traditional board games, dice are not used to move the pawns, but cards, which also contain instructions about which pawns must move. The fact that participants may draw a card that does not move their own pawn provides the game with more excitement and fun.

The following precautions were taken when making the game: choosing user-friendly language, employing both lay and scientific vocabulary, a combination expressed in the discourse of the participants; associating theoretical and practical knowledge; alternating between text and images, with special attention to coherence between them, favoring the apprehension and assimilation of the themes proposed through visual memory; and the use of short sentences to facilitate understanding of the information. Verbal and nonverbal communication were used alternately to make the game more involving.

The game contains six pawns that represent both male and female older adults; twenty-one cards that coordinate the dynamics between the participants (instead of dice), determining which participant moves their pawn, how many squares to move, or whether they lose a turn, also known as the "snooze card"; and the game board and a card with the game rules, namely: 1) This is a two to six player game. 2) Choose a pawn and then set aside the cards that correspond to that pawn. Remove the pawn cards that will not be used from the deck. 3) Place the pawns on the "Older Adult" house to begin the game. 4) Shuffle all the cards, including the snooze cards, then place them face down next to the board. 5) Choose who will go first as a group, and then proceed in clockwise order. The first player draws the card that begins the game, and then the other players do the same on their turn. 6) Each card indicates which pawn will move and how many spaces. If participants draw a snooze card, they lose a turn and the turn goes to the next participant. 7) Players may land on squares that provide information about healthy or unhealthy aging practices. Cards containing information about practices that foster active and healthy aging, grant players bonus moves (either moving some squares forward or playing again), and cards with information about practices that compromise this process lead to penalties (losing a turn, going back a few houses, or taking a longer way around). 8) The player who reaches the finish line first, called "Active and Healthy Aging," wins the game.

To play the game, it is necessary to set up a space with tables and chairs so that older adults can sit comfortably in a circle with the board placed at the center of the table. The game should be mediated by a professional to help players with the rules and reinforce information provided during the game.

Figures 1, 2 and 3 show the game cards, pawns, and board. Figure 1 represents the cards (total of 21 cards) used to determine which player moves (1a), how many spaces 1b), or if they sit out a turn (1c), also known as the "snooze card". Figure 2 represents the game pawns: a total of 6, 3 representing male players and 3, female players. Figure 3 shows the board game with the path to be completed (3a), being that some squares gave players a bonus to move spaces forward while others can hold them back (3b).

The goal of this gerotechnology in terms of promoting the health of older adults were: to learn about the knowledge and practices of players about the aging process to maintain functional capability; provide social interaction, cognitive, motor and sensorial stimulation, develop reasoning, skills, self-confidence, and autonomy; enable the exchange of knowledge among educators and educatees about self-care to maintain functional capacity and promote active and healthy aging.

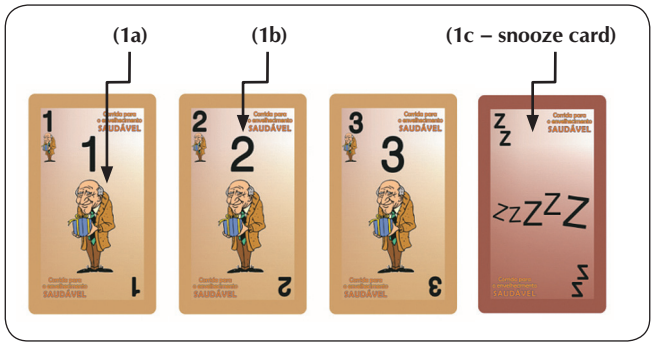

Figure 1 – Game cards, Vitória, Espirito Santo, Brazil, October-November 2014

Figure 2 – Pawns, Vitória, Espirito Santo, Brazil, October-November, 2014.

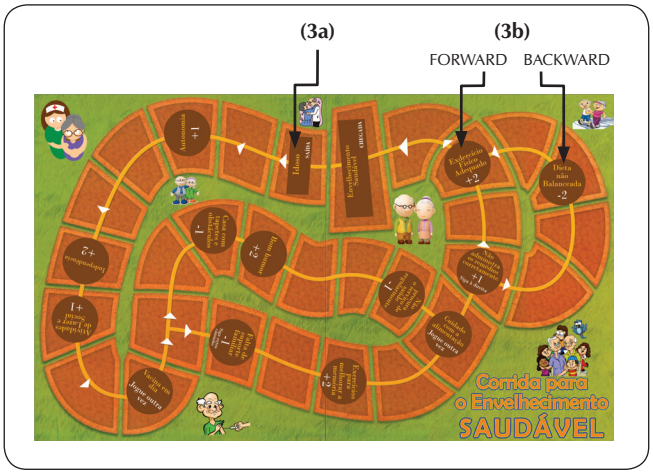

Figure 3 – Board game and houses, Vitória, Espirito Santo, Brazil, October-November, 2014

Implementing the board game and assessment of participants

The board game was presented to the older adults at the third meeting of each group. They were presented with details about its application, how it worked and the rules, and the participants asked questions and shared their impressions about the proposed educational technology. During its implementation, the older adults expressed enthusiasm and motivation. The participants' verbal and nonverbal expressions included laughter, spontaneity, solidarity when helping those with more difficulty, competitiveness and even frustration when the answers were not those required to win bonus moves.

The participants expressed joy as they played, which indicated that learning was being facilitated. But there were also limitations to the proposal, for example, some participants found it hard to assimilate and apply the rules of the game, which was overcome by the group's collective and solidary spirit. Thus, those who had an easier time understanding certain phases of the game helped others understand when they had doubts, making the activity pleasant for all:

> *When we work together, think together, the game flows better. While we were playing, we helped each other remember what we had talked about and also got to know our colleague sitting next to us. It was great!* (I28)

Collaboration among them was expressed in the following excerpts:

> *I'll help you* [...]. *You drew a three card. So you count, one, two and three. You got another point, know why? Because you stopped on the space 'carry out leisure and social activities' which is a very good thing for us."* [I01 to I07]

> [Gets up from the chair and cheers] *I got a point! Because I stopped on the autonomy space* [laughter]. *This is very important to me!* (I01)

When instructed to reflect about their experience playing the game, the older adults said that the game had allowed them to retain what had been shared during the class discussions, helping them reflect about their life habits:

> *It was great! When we just talk or passively absorb the material, it's not the same as when we put it into practice, we develop ourselves further. We understood the information better.* (I04)

> *The games helped a lot! I think they helped us pay more attention to what we talked about before. This helped me a lot at home.* (I25)

Board games are made to be played by one or more players, and can require only luck or knowledge, strategy, or memory. However, the game implemented in this study also considered other important stimuli: mental, as the participants had to understand the game rules and objectives; motor, in order to manipulate objects and move pawns during the game; sensory, fostered through player interaction with the game; and social, mobilizing human interaction[24-25].

DISCUSSION

The transition in the demographic process that has resulted in the growth of population aging poses a challenge not only to national and international organizations in terms of creating policies that meet the needs of older adults, but also to health professionals who must produce technologies capable of promoting this populations' health and well-being. The game created in this study as a recreational form of promoting active and healthy aging proved to be a technology that facilitates interaction among those being educated (older adults, family members, community) and educators (nurses), promoting the teaching-learning process. It proposed to recognize the potential of older adults to maintain and develop their skills, placing them as capable subjects who can learn, teach, and share experiences.

With this understanding, health professionals must not focus only on diseases and the complications inherent to aging, but invest in the use of technologies that aim to maintain the autonomy of older adults to perform self-care, making them active and co-responsible partners in health care. As an educational form of gerotechnology, the board game represented a source of knowledge about health and assisted in decision making, respecting different forms of knowledge and the cultural context that underpins the practices of those involved, important elements to ensure the effectiveness of the proposal[11].

When based on the understanding of education as a process of liberation, health professionals consider those receiving care as historical-social individuals, capable of constructing their own knowledge[26]. It is necessary to overcome health education practices that function merely as forms of transmitting information, helping students perceive themselves as questioning subjects, in an ongoing search to discover the reason behind things[22]. To this end, professionals can use the strategy of sharing learning experiences to facilitate health-promoting actions. This considers the encounter of different modes of existence, with the production of subjectivity enhanced by the group space. This process takes place through the meaning of the situations experienced by the group subjects in and out of

the group, configuring a phenomenon that mobilizes ongoing change and questioning of reality[27].

When converging research with care of educational nature through the game, the presence of nurses as mediators and facilitator of the teaching-learning process fostered the discussion of the interests of the participating older adults, both before and during play. Its use as an educational gerotechnology enabled dialogue, giving the older adults space to express their doubts and questions to the group, which were problematized within the established relationship of trust and critical thinking.

This way of thinking and implementing health education aims to overcome social marginalization. In addition to proposing and being an agent of transformative action, education is a fundamental human right, regardless of age. Thus, as citizens, older adults have the right to health education, not only as a form of instrumentalization or compensation, but as a space for questioning reality, making decisions, building capacities, and engaging in dialogue[28]. When education is based on the idea of humans as the subjects of their own stories and existence in the world, with the Paulo Freire problematization method and dialogue as essential pedagogical elements that serve as the foundation of the educator-educatee relationship, both sides learn together through an emancipatory process[29]. Thus, the gerotechnology created and implemented in this study served as a recreational pedagogical resource for nursing care, contributing to the construction of knowledge in the field of older adult health, with the goal of preventing and minimizing disabilities, empowering older adults for care. Furthermore, based on these results, it can be inferred that nurses can work to strengthen the self-care skills of older adults, giving them an active role in the process of aging with quality of life[30-31].

Limitations of the study

To use the game as a form of gerotechnology, nurses must be familiar with issues related to the physical, psychic, social and political aspects that involve the different dimensions of the aging process. In addition to possessing theoretical knowledge in gerontology and geriatrics, facilitators must be open to dialogue, honing their capacity for critical thinking, sensitivity, and human interaction.

Contributions to the area of nursing and public health

As an educational gerotechnology, the board game helped bring the group together, creating a friendly and comfortable atmosphere and bonds within the group, thus facilitating nursing care of older adults. Fostered by dialogue and playfulness, the game awoke a critical-reflective attitude in players regarding their co-responsibility and co-participation in managing actions that promote independence and autonomy in self-care, regardless of the presence or absence of diseases and limitations inherent to aging. Humans only become aware of themselves as beings in a world and with the world when they take upon themselves the responsibility of participating and co-participating with others[29].

To contribute to the production and dissemination of knowledge in gerontological nursing, the gerotechnology created and implemented in this study was patented by the Institute of Technological Innovation of the Vice-Rectory of Research and Graduate Studies (INIT/PRPPG), of the Federal University of Espírito Santo (UFES), registered under no. BR 1020160107725 in 2016.

FINAL CONSIDERATIONS

The creation and implementation of the board game as a recreational technology applied to the field of gerontological nursing can help shift health educational activities that are mostly based on symptom-centered care models towards pedagogical proposals that construct knowledge that promotes active and healthy aging. This is carried out through dialogical action and by encouraging the creative potential of players, empowering older adults and family members for care. The gerotechnology implemented in clinical nursing practice functioned as a playful resource to exercise self-determination and independence among older adults, boosting memory, self-esteem, socialization processes, exchanging experiences and shared learning.

As a technological, creative, recreational resource that requires group participation, the game allowed the older adults to reflect about the pertinence of the proposal to apprehend the shared information. The (educational) strategy and the resource (game) used contributed to the older adults becoming aware of their limitations and possibilities regarding the aging process.

The pedagogical proposal developed in this study enabled the researcher to use both her prior knowledge and that of the older adults, widely disseminated in our society, when creating the board game. This enabled better treatment adherence and maintenance of functional ability for longer periods.

The present gerotechnology can be implemented both in health promotion and in actions to prevent and control existing diseases, bringing professionals closer to older adults. As a form of technology, the game can be adapted to the reality of other social groups, addressing specific themes, given that its purposes related to education, social interaction, and the sharing of knowledge and practices are taken into account, all provided through a recreational moment.

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